



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|----------------------|-------------|----------------------|---------------------|-------------------------|
| 10/001,654 | 10/31/2001 | Michael W. Hathaway | HATHAWAY 2-8-7 | 2026 |
| 47396 | 7590 | 11/29/2005 | EXAMINER | |
| HITT GAINES, PC | | | | HALIYUR, VENKATESH N |
| AGERE SYSTEMS INC. | | | | |
| PO BOX 832570 | | | | |
| RICHARDSON, TX 75083 | | | | |
| | | | | 2664 |
| | | | | DATE MAILED: 11/29/2005 |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/001,654 | HATHAWAY ET AL. | |
| | Examiner | Art Unit | |
| | Venkatesh Haliyur | 2664 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 10/12/2005.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1 to 40 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-5,7-15,17-23,25,27-35,37-40 is/are rejected.
- 7) Claim(s) 6,16,24,26 and 36 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 31 October 2001 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

DETAILED ACTION

1. Claims 1-40 have been examined.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5,7-15,17-23,25,27-35,37-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al [US Pat 6,747,977] in view of Lyons et al [US Pat 6,075,789].

Regarding claims 1,11,21,22,31, Smith et al disclosed a packet interface and method of packetizing information from a narrowband to broadband domain [Fig 1] for use with voice applications comprising a processor [21 of Fig 1], controller [26 of Fig 1] and signal processor [19 of Fig 1] to receive, process and convert narrowband voice data packets to broadband packets or vice-versa [column 1, lines 1-15,column 8, lines 9-55]. Smith et al also disclosed a mechanism for buffering, reassembly and retransmission of packets [17,23,24 of Fig 1]. Smith et al further disclosed several applications of their packet interface including the conversion of voice data in CPS

format to ATM AAL-2 format [column 16, lines 36-68, column 17, lines 1-17]. But, Smith et al fails to disclose a voice packet parsing and reassembly method in their invention.

However, Lyons et al [US Pat 6,075,789] disclosed in their invention of extended header for use in ATM adaptation layer type 2 packets to convert ATM AAL-2 cells into SSCS cells or vice-versa using an AAL-2/SSCS processor and ATM processor [130,135 of Fig 4] for segmentation and reassembly (SAR) process [column 2, lines 66-67, column 3, lines 1-9, column 4, lines 14-52].

Regarding claims 7,17,27,37, Smith et al disclosed a processing mechanism for variable size broadband packets [column 7, lines 31-57, column 8, lines 56-67, column 9 1-29]. But, Smith et al fails to disclose a timer mechanism for processing variable size broadband packets.

However, Lyons at al discloses a timer mechanism for transmitting an AAL2 cell when it is not filled with in a time limit [column 6, lines 3-31].

Regarding claims 9,19,29,39, Smith et al disclosed a mechanism to receive and hold packets in a buffer [column 8, lines 9-55]. But, Smith et al fails to disclose a packet reordering mechanism.

However, Lyons at all discloses a packet sequencing mechanism for packet reordering [column 4, lines 24-49, column 6, lines 32-31-67] to process AAL-2 cells.

Therefore it would have been obvious for one of ordinary skill in the art to use the teachings of Lyons et al in to the packet interface system of Smith et al to include SAR (segmentation and reassembly), timer and packet sequencing functionality to convert

packets from narrowband domain to broadband domain or vice-versa for voice applications.

Regarding claims, 5,15,25,35, Smith et al disclosed a method to include switching adaptation device for buffering, processing and transmitting variable size packets in a broadband environment [column 7,lines 28-43,column 9 lines 30-43].

Regarding claims 2-4,12-14, 23,32-34, Smith et al disclosed a queuing and bypassing [column 6, lines 58-67,column 7,1-57] mechanism to transfer non-AAL2 and non-voice packets [column 16, lines 36-67, column 17, lines 1-17] instantaneously for onward transmission.

Regarding claims 8,18,28,38, Smith et al disclosed a mechanism to either process or bypass packets based on channel, addressing and addressed unit's ID [column 6, lines 3-36, column 7, lines 10-27].

Regarding claims 10,20,30,40 Smith et al disclosed a mechanism to buffer, segment and construct single or multi- packed packets using processor [21 of Fig 1], signal Processor [19 of Fig 1], controller [26 of Fig 1] and channel buffer [25 of Fig 1] based on channel identity [column 8, lines 56-67,column 9,lines 1-44].

Allowable Subject Matter

4. Regarding claims 6,16,24,26,36 are objected to as being dependent upon a rejected base claims but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

5. Applicant's arguments filed 10/12/2005 have been fully considered but they are not persuasive and the examiner respectfully traverses the applicants' response to FOAM.

Specification

6. Examiner respectfully accepts the amendment made to the specification in paragraphs 0054 and 0064 by the applicants to add the reference character(s) in the description in compliance with 37 CFR 1.121(b).

7. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper.

8. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention

where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art.

9. Examiner respectfully traverses the applicants arguments to the claim rejections as cited in item II (pp 16 – 18) as follows-

- a. Smith et al. disclosed in their invention a method to improve to achieve acceptable QoS for voice packets in a packetized system for a narrowband and broadband (ATM domain) interface provisioned to support ATM AAL-2 [columns 1-9], which is also one of the stated goals of the applicants' invention to optimize the processing of packets in a broadband domain such as broadband domain and terabit switches [para 0039].
- b. Lyons et al. similarly disclosed mechanisms for increasing the efficiency of voice packet processing by selective use of extended header for the purposes of conveying call messages efficiently in a narrowband – broadband interface provisioned to support ATM AAL-2 [columns 1-7].
- c. Smith et al. disclosed the configuration of elements in Fig 1, Lyons et al. disclosed in Fig 2 the configuration of the elements that is not taught by Smith et al. and the examiner respectfully traverses the teachings of Lyons et al to modify the system of Smith et al. to produce the claimed invention.
- d. Examiner has respectfully objected to claims to 6,16,24,26,36 as objected to as being dependent upon a rejected base claims but would be allowable if

rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art in reference here are Smith et al and Lyons et al.

11. Any inquiry concerning this communication or earlier communications should be directed to the attention to Venkatesh Haliyur whose phone number is 571-272-8616. The examiner can normally be reached on Monday-Friday from 9:00AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached @ (571)-272-3134.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (571)-272-2600 or Fax enquiries to 571-273-8300.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status inform

13. ation for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair->

Art Unit: 2664

direct.uspto.gov. Should you have questions on access to the Private PAIR system,
contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

~BN~
Ajit Patel
Primary Examiner